

IOFE, N.Sh.

Building up breeding stocks of meat-type chickens on collective  
and state farms. Ptitssevodstvo 9 no.9:18-21 8 '59.  
(MIRA 12:12)

1. Starshiy sootekhnik Glavnoy inspeksii zhivotnovodstva  
Ministerstva sel'skogo khozyaystva SSSR.  
(Poultry)

ARSENHSHVILI, A.Yu.; BOGDANOV, M.N.; GORIZONTOVA, Ye.A.; YERSHIOVA, Ye.I.;  
YELENBAUM, N.I.; IOFE, N.Sh.; KARAVAYEV, A.M.; MOLOBOV, G.M.;  
LOBIN, N.V., kand. sel'khoz. nauk; KUSHNER, Kh.F., doktor biolog.  
nauk; MISHIN, P.N.; PATRIK, I.A., kand. sel'khoz. nauk; REDIKH,  
V.K., kand. sel'khoz. nauk; SEMTNEV, S.I., akademik; SAMOLETOV,  
A.I.; FILASOV, V.V.; SHKUDOVA, R.I.; SOKOLOVA, G.S., red.;  
ROMANOVICH, Ye.F., red.; LEVINA, L.G., tekhn. red.

[Chickens for meat] TSypliata na miaso. Moskva, Izd-vo M-va  
sel'.khoz. RSFSR, 1960. 197 p. (MIRA 15:1)  
(Poultry)

BOGDANOV, Mikhail Nikolayevich; IOFE, Nokhm Shleymovich; DOBYCHINA, I.N.,  
red.; TRUKHINA, O.N., tekhn. red.

[Raising chicken for meat] Vyrashchivanie miasnykh tsyplyat. Mo-  
skva, Gos.izd-vo sel'khoz.lit-ry, 1961. 87 p. (MIRA 15:1)  
(Poultry)

1ST AND 2ND GROUPS		PROCESSING AND POLYMERIZATION	
<p><b>CA 10 FES. 1</b></p> <p><b>Influence of salt and sulfate on window-glass crystallization.</b> A. P. Zak and S. I. Ioffe. <i>Kovani. i Stelo</i> 7, No. 4, 23-5 (1931).—Sulfates and chlorides present in a batch do not affect the process of fusing and degasification in a harmful way; on the contrary, they quicken the process. But the introduction of chloride into the batch in a quantity exceeding 2% sometimes causes a dimming of the glass. Since natural soda, often containing impurities in the form of sulfate and chloride, is used in the glass industry, the study of the influence of these impurities on glass crystal. is of great importance. The introduction of NaCl 0.5-5% and of Na<sub>2</sub>SO<sub>4</sub> 0.5-8% does not influence the speed of crystal. at 800-1000°. The introduction of these impurities, in the given quantities, does not create any phenomenon of opalescence or of increasing crystal.</p> <p><b>Al. V. KONDOROV</b></p>			
<p><b>ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION</b></p>			
<p><b>10000 STEELWORK</b></p>		<p><b>10000 STEELWORK</b></p>	
<p><b>10000 STEELWORK</b></p>		<p><b>10000 STEELWORK</b></p>	

1ST AND 2ND CROSS										3RD AND 4TH CROSS									
PROCESS AND PROPERTIES INDEX																			
<p>10FE, S.1.</p> <p>Ca</p> <p>19</p> <p>Cooling of glass. S. G. Lizenyanskaya and R. I. Iofe. <i>Nauka, Izdatel'stvo, Inst. Stekla No. 1, Moscow, 1964</i> (1964). A detailed discussion is given of (1) methods used for detg. the cooling temp. of glass; (2) effect of oxides forming glass on the cooling temp.; (3) calcg. the cooling temp. from the glass compn.; (4) rate of cooling dependent on the thickness of the glass; (5) supervising glass cooling; (6) microscope studies; (7) thermal supervision; (8) properties of etched and hardened glasses; (9) effect of cooling on some physico-chem. properties of glass. Numerous tables and an index of literature accompany the discussion. M. V. K.</p>																			
METALLURGICAL LITERATURE CLASSIFICATION										CROSS-REFERENCE									
<p>10FE, S.1.</p> <p>Ca</p> <p>19</p>										<p>10FE, S.1.</p> <p>Ca</p> <p>19</p>									

BUROV, A.K., doktor tekhnicheskikh nauk; ANDREYEVSKAYA, G.D., kandidat tekhnicheskikh nauk; CHMUTOV, K.V., redaktor; IOFE, S.I., redaktor; ZELENIKOVA, Ye.V., tekhnicheskiiy redaktor.

[Anisotropic glass-fiber materials and their technical use]  
Stekleleknistye anisotropnye materialy i ikh tekhnicheskoe  
primeneniye. Moskva, Izd-vo Akademii nauk SSSR, 1956. 69 p.  
(MIRA 9:6)

1.Chlen-korrespondent AN SSSR (for Chmutov)  
(Glass fiber)

101-5-5  
AUTHORS: Pik, I. Sh., Zaytseva, A. M., 64-58-2-13/16  
in Collaboration With Iofe, S. S.

TITLE: Intensification of the Process of Pressing Aminoplastics  
(Intensifikatsiya protsessa pressovaniya aminoplastov)

PERIODICAL: Khimicheskaya Promyshlennost', 1958, Nr 2, pp. 54-56  
(USSR)

ABSTRACT: In the below mentioned plant for plastics it was decided upon to introduce a differentiation of the pressing exposure, a tableting, high-frequency heating as well as higher temperatures and lower specific pressure in the pressing of aminoplastics for the purpose mentioned in the title. Corresponding to the mentioned hardening velocities it was found that the use of differentiated exposures gives the possibility of increasing the productivity by 6%. The tableting carried out with the investigated aminoplastics showed that at various temperatures of pressing a shortening of the exposure could be obtained. Then it is pointed out that the tableting of aminoplastics must be improved, and besides it was mentioned that tableting

Card 1/3

Intensification of the Process of Pressing  
Aminoplastics

64-58-2-13/16

can cause unfavorable phenomena in some articles. The use of high-frequency current for heating aminoplastics showed that also a considerable shortening of the period of pressing exposure was achieved, no degradation of the physico-chemical and physico-mechanical properties, respectively, of finished products having been observed. The investigations of the influence of the pressing temperature showed that the shortest period of pressing exposure is at  $150 \pm 3^{\circ}\text{C}$ , differentiations being mentioned referring to the quality and individual properties, respectively, of the finished product. Data in tables are given on the results obtained just as well as investigations of the quality of the finished product. The experiments carried out at various specific pressure (265, 250, 200 and 100  $\text{kg/cm}^2$ ) yielded positive results with the exception of the last lowest value at which the sample showed a pad after the experiment. It is recommended to employ the above mentioned ideas; at the same time it is necessary to carry out a reinforcement of the presses as well as the

Card 2/3



Intensification of the Process of Pressing  
Aminoplastics

64-58-2-13/16

supply of the high-frequency plants with control apparatus, an improvement of the quality and a standardization of the aminoplastics.  
There are 5 tables and 0 references.

ASSOCIATION: Karacharovskiy zavod plastmass (Plant  
for Plastics)

AVAILABLE: Library of Congress

1. Plastics--Processing
2. Plastics--Temperature factors
3. Plastics--Electrical factors
4. Materials--Production

Card 3/3

IOFE, V. K.

19914 IOFE, V. K.

.....K.voprosy ob elektroakustike radioveshchate l'nykh priyemnikov  
(Po povody stat; V. A. Govyadinova << Elektroakustika radioveschatel'nykh  
priyemnikov >> zhurn. << radiotekhnika, 77 1948, #6) diotekhnika, 1949, #3,  
s. 69-72

So: Letopis Zhurnal Statey, Vol. 27, Moskva, 1949

IOFE, V. [K]

20707. Iofe, V. i Godzevskiy, A. Kakim Dolzhen byt' vysokokachestvennyy priyemnik.  
/ Po povodu odnoim. stat' i A. Frolova v zhurn. "Radio", 1948, No. 12 / . Radio, 1949  
No. 6, s. 14-16

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949

IOFE, V. K.; SAPOZHKOVA, M. A.

Speech

Problem of the methodology of computing comprehensibility of speech, Trudy Kom. op. akust, No. 6, 1951.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

IOFE, Viktor Kiyovich; PAPERNOV, I.Z., redaktor; MARTSINKHEVICH, T.M.,  
redaktor; SOKOLOVA, R.Ya., tekhnicheskiy redaktor

[Electroacoustics] Elektroakustika. Moskva, Gos. izd-vo lit-ry  
po voprosam svyazi i radio, 1954. 182 p. (MIRA 8:1)  
(Electroacoustics)

*Iofe, Viktor K.*

Call Nr: TK 5981.154

BOOK:

AUTHOR: Iofe, Viktor K.

TITLE: Electroacoustics (Elektroakustika)

PUB. DATA: Gosudarstvennoye izdatel'stvo literatury po voprosam svyazi i radio, Moscow, 1954, 184 pp., 20,000 copies

ORIG, AGENCY: None given

EDITORS: Responsible Ed.: Papernov, L. Z., Editor: Martinkevich, T. M.,  
Tech. Ed.: Sokolova, R. Ya., Corrector: Dik, I. A.

PURPOSE: Approved by the Main Administration of Educational Institutions of the Ministry of Communications as a textbook on electroacoustics for students of communication technicians.

COVERAGE: The book presents principles of acoustics; production and transmission of sound, sources and receivers of sound; mechanism of microphones, loudspeakers, telephones, and sound recording and reproduction. The book contains Russian contributions; no personalities mentioned. There are 18 references, all of which are USSR.

Card 1/5

Electroacoustics (Elektreakustika) (cont.)

Call Nr: TK 5981.154

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Electroacoustics (Elektroakustika) (Cont.)

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Card 4/5

Electroacoustics (Elektroakustika) (Cont.)

Call No. TK 5981.154

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AVAILABLE: Library of Congress  
Card 5/5

IOFE, V.K.; YANPOL'SKIY, A.A.; VARSHAVSKIY, L.A., redaktor; VORONETSKAYA, L.V.,  
tehnicheskiiy redaktor.

[Diagrams and tables for calculations in electroacoustics] Raschetnye  
grafiki i tablitsy po elektroakustike. Moskva, Gos. energ. izd-vo, 1954.  
522 p. (MIRA 8:1)

(Electroacoustics)

IOFE, V. K.

Category : USSR/Acoustics - Physiological Acoustics. Speech and Singing

J-8

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4815

Author : Iofe, V.K.

Title : Design of Transmission Channels with Limited Power for Articulation.

Orig Pub : Tr. Vses. n.-t iz-ta radioveshchat. priema i akust., 1955, vyp. 5, 16-23

Abstract : The dependence of the coefficient of perception of the  $i$ 'th equal-articulation band  $p_i$  on the level  $E'_f$  of the formant sensation is represented by a curve having a varying slope. Therefore, equal increments in  $E'_f$  cause different increments in  $p_i$ , depending on the initial value of  $E'_f$ , which, other conditions being equal, depends on the frequency location of the band. If the channel has limited power, it is convenient to distribute the power among the bands in such a way as to obtain a maximum sum of  $p_i$  over the entire range. To calculate the channel, the following equation is derived

$$E'_f = 10 \log \Delta N_i + Q$$

where  $\Delta N_i$  is the power applied to the loudspeaker in the given band, and  $Q$  a certain constant for the given band and for the given channel,

Card : 1/2

Category : USSR/Acoustics - Physiological Acoustics. Speech and Singing

J-8

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4815

expressed in decibels. Analytical calculation is possible only for the case of two bands. The trial and error method is recommended in which  $Q$  is determined for each band and the possible power is gradually applied in equal shares to each band;  $E'$  and  $P_1$  are then calculated; it is determined in what bands the subsequent additions of power are most effective. The result is an establishment of the most suitable distribution.

Card : 2/2

DNEPROVSKAYA, I.A.; IQFE, V.K.; LEVITAS, F.I.

Attenuation of sound propagated in the atmosphere. Akust.zhur.  
8 no.3:301-307 '62. (MIRA 15:11)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy institut  
radioveshchatel'nogo priyema i akustiki in. A.S.Popova, Leningrad.  
(Atmospheric acoustics)

IOFE, Ya.

Disappearing seasonal production. Mias. ind. SSSR 29 no.5:26-27  
'58. (MIRA 11:10)

1. Glavnyy inzhener upravleniya myasnoy i molochnoy promyshlennosti Vinnitskogo sovnarkhoza.  
(Vinnitsa--Packing houses)

10FE, Yu.M.  
BTR

22

9179\* A Method of Measuring the Thermal Conductivity  
of Ceramic Materials. (In Russian.) I. A. Alpatovich and Yu  
M. Iofe, *Steklo i Keramika*, v. 8, Dec. 1951, p. 21-23.  
Equipment and procedures for the above are described. Data  
are tabulated.



SHINTL'MEYSTER, I.; PUMPER, Ye.Ya., red.; IOFE, Yu.M., red.; MURASHOVA,  
N.Ya., tekhn.red.

[Electron tube as a device for physical measurements] Elektronnaya  
lampa kak pribor dlia fizicheskikh izmerenii. Moskva, Gos.izd-vo  
tekhniko-teoret.lit-ry, 1959. 343 p. (MIRA 12:12)  
(Electron tubes) (Electric measurements)

IOFF, I.G. [deceased]; TIFLOV, V. V.; FEDINA, O.A. [deceased]

List of flea species (Suctoria) in Stavropol Territory. Mat. k  
pozn. fauny i flory SSSR. Otd. zool. no.39:24-30 '64.

(MIRA 37:6)

IOFF, Ivan Grigor'yevich; MIKULIN, Mitrofan Alekseyevich;  
SKALON, Ol'ga Ivanovna; OLSUF'YEV, N.G., red.

[Guide to the fleas of Central Asia and Kazakhstan] Opre-  
delitel' blokh Srednei Azii i Kazakhstana. Moskva, Me-  
ditsina, 1965. 369 p. (MIRA 18:7)

IOFF, Nikolay Abramovich

DECEASED  
c. '62

1963/  
4

Embryology - invertebrates

TUV, I.A., kand.tekhn.nauk; IOFF, U.M., inzh.

Efficiency of burning watery fuel oils. Proizv.-tekhn. sobr. no.3:3-  
19 '59. (MIRA 13:10)

1. Leningradskiy institut vodnogo transporta.  
(Petroleum as fuel) (Marine engines--Combustion)

TUV, I.A., kand. tekhn. nauk; IOFF, U.M., inzh.

Utilizing heavily watered fuel oils as boiler fuel. Rech. trans.  
18 no.8:29-32 Ag '59. (MIRA 12:12)  
(Petroleum as fuel)

TUV, I.A.; IOFF, U.M.; RZHAVSKIY, Ye.L.

Using fuel oils with a high water content and fuel oil sludge  
as boiler oil, Neft.khoz. 37 no.12:44-49 D '59.  
(MIRA 13:5)

(Fuel oil)

MIODZEYEVSKIY, A.B., prof.; IOFE, Yu.M., red.; SIFELESA, A.I., tekhn. red.

[Lecture demonstrations in physics] Lektsionnye demonstratsii po fizike. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry. No.1. [General instructions, molecular physics, and thermodynamics] Obshchie ukazaniia, molekuliarnaia fizika i termodinamika. 1948. 170 p.

(MIRA 14:7)

(Physics—Experiments)



IOFF, N.A. (Moskva)

The cancer problem in the light of embryological data. Arkh.pat.  
20 no.1:12-22 '58. (MIRA 13:12)

1. Iz kafedry embriologii Moskovskogo gosudarstvennogo universiteta  
imeni Lomonosova.

(CANCER)

IOFFA, I. A.

Vosstanovlenie instrumenta. Iz opyta Uralmashzavoda. (Novatory proizvodstva)  
/Reconditioning tools; from experience of the Ural Heavy Machinery Factory  
(innovators of production)/. Mashgiz, Moskva-Sverdlovsk, 1953. 32 p.

SO: Monthly List of Russian Accessions, Vol. 7 No. 1 April 1954.

IOFFA, L. Ye.

IOFFA, L. Ye. - "Cities in the Urals." Sub 28 Mar 52, Moscow  
Order of Lenin State U imeni M. V. Lomonosov. (Dissertation  
for the Degree of Candidate in Geographical Sciences).

SO: Vechernaya Moskva January-December 1952



LAST AND FIRST INITIALS																										ADDRESS AND PROPERTY NO.																									
LOFFE, Anne																																																			
60																																																			
<p>Photoconductive layers in organic crystals. Anne              Loffe and A. P. Joffe. <i>Physik. Z. Supplement</i> 7, 347 (1966)              (1967); <i>U.S. A. 3,271,611</i>. These layers are caused by a              difference in concentration of electrons at the electrodes and a flow              of electrons away from the illuminated area. The illuminated              areas have greater open potentials. Concentrated              results are obtained only with transparent electrodes.              The diffusion theory of this effect does not agree with              experiment; the reasons for this are discussed. New formulas              derived by the authors agree with experiment. A. H. F. D.</p>																																																			
<p>DATE OF DEPOSIT: 10/10/66</p> <p>CLASSIFICATION: SECRET</p> <p>REMARKS: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 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2002. 2003. 2004. 2005. 2006. 2007. 2008. 2009. 2010. 2011. 2012. 2013. 2014. 2015. 2016. 2017. 2018. 2019. 2020. 2021. 2022. 2023. 2024. 2025. 2026. 2027. 2028. 2029. 2030. 2031. 2032. 2033. 2034. 2035. 2036. 2037. 2038. 2039. 2040. 2041. 2042. 2043. 2044. 2045. 2046. 2047. 2048. 2049. 2050. 2051. 2052. 2053. 2054. 2055. 2056. 2057. 2058. 2059. 2060. 2061. 2062. 2063. 2064. 2065. 2066. 2067. 2068. 2069. 2070. 2071. 2072. 2073. 2074. 2075. 2076. 2077. 2078. 2079. 2080. 2081. 2082. 2083. 2084. 2085. 2086. 2087. 2088. 2089. 2090. 2091. 2092. 2093. 2094. 2095. 2096. 2097. 2098. 2099. 2100. 2101. 2102. 2103. 2104. 2105. 2106. 2107. 2108. 2109. 2110. 2111. 2112. 2113. 2114. 2115. 2116. 2117. 2118. 2119. 2120. 2121. 2122. 2123. 2124. 2125. 2126. 2127. 2128. 2129. 2130. 2131. 2132. 2133. 2134. 2135. 2136. 2137. 2138. 2139. 2140. 2141. 2142. 2143. 2144. 2145. 2146. 2147. 2148. 2149. 2150. 2151. 2152. 2153. 2154. 2155. 2156. 2157. 2158. 2159. 2160. 2161. 2162.</p>																																																			

Ioffe, A.

USSR/Processes and Equipment for Chemical Industries.  
Processes and Apparatus for Chemical Technology

K-1

Abs Jour : Referat Zhur - Khimiya, No 9, 1957, 33252

Author : Ioffe, A., Stil'bans, L., Iordanishvili, Ye.,  
Fedorovich, A.

Inst :

Title : Thermoelectric Cooling in Refrigeration Engineering

Orig Pub : Kholodil'naya tekhnika, 1956, No 3, 5-16

Abstract : A brief consideration of the physical phenomena upon which the thermoelectric cooling is based, and a presentation of the fundamental propositions of the theory of A.I. Ioffe. A formula is given for determination of the refrigeration coefficient  $\epsilon$ , from which it follows that  $\epsilon$  does not depend on geometrical dimensions and shape of the thermoelements but is determined by the physical characteristics of semiconductor materials (thermal and electric conductivity, thermo e.m.f. of thermoelement branches)

Card 1/2

USSR/Processes and Equipment for Chemical Industries -  
Processes and Apparatus for Chemical Technology

K-1

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 33252

and the temperature of hot and cold junctions  $t_2$  and  $t_x$ ; with increase of  $\Delta t = t_2 - t_x$  the  $\epsilon$  is greatly decreased and at a certain value  $\Delta t_{\max}$  it becomes equal to zero. In order to increase  $\epsilon$  it is necessary to use multicascade system cooling, in which several batteries are utilized, each of which operates at a lower  $\Delta t$  and, consequently, at a higher  $\epsilon$ . A brief description is given of thermo-electric refrigerators with batteries made from PbTe - PbSe alloys (negative branch) and an alloy based on Te and Sb (positive branch); Experience has shown that in the case of such batteries  $\Delta t_{\max} = 47^\circ$ . Difficulties arise in the selection of electric insulation interlayers between the cascades which must have a sufficiently high heat conductivity. It was found that the best interlayer is one consisting of FG-9 silicone lacquer containing a 6% addition of Al powder.

Card 2/2

PLETNEV, A., inzh.; IOFFE, A., starshiy nauchnyy sotrudnik

Investigating binding and wall materials from the Nal'chik volcanic ashes. Sbor. nauch. soob. NIIsel'stroia no.2:78-87 '60. (MIRA 15:5)

(Nal'chik region--Volcanic ash, tuff, etc.)  
(Construction materials)

IOFFE, A. (Leningrad); DOBRONRAVOV, N. (Leningrad)

Observations concerning the spreading of X-ray impulses. Magy fiz  
folyoir 8 no.3:255-258 '60. (EEAI 10:1)  
(X-rays)



31139  
S/149/62/000/001/008/009  
A006/A101

18.1246  
15.2240

AUTHORS: Fedorov, P. I., Ioffe, A. A.

TITLE: On lithium-silicon alloys

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya,  
no. 1, 1962, 127 - 131

TEXT: To complete data on the lithium-silicon system presented by H. Böhm, the authors have published data obtained by thermal and microstructural analysis of the system. The initial materials were lithium of 98.5% purity containing 0.8% Na, 0.2% K and 0.2% Mg and silicon of 98.5% purity containing iron, aluminum and calcium admixtures. The microstructural analysis was made with slow-cooled and cast alloys, produced in a special device. Results of the thermal analysis are tabulated and a constitutional diagram is given (Figure 2). The liquidus consists of three lines. Lines AB and BC correspond to the crystallization of two  $\text{Li}_4\text{Si}$  modifications from the melt, designed as  $\beta$  and  $\beta'$ , and line DC corresponds to the crystallization of phase  $\gamma$  with a higher Si content, which obviously corresponds to  $\text{Li}_2\text{Si}$  silicide described in literature. The AK horizontal is an eutectic line. Interruptions on the cooling curves corresponding to this

Card 1/1 2

On lithium-silicon alloys

34139  
S/149/62/000/001/008/009  
A006/A101

line are observed at 182°C, whereas the lithium employed has a melting temperature of 185°C. Lithium silicide  $\text{Li}_4\text{Si}$  dissociates at 636°C by a peritectic reaction (line CEF). Horizontals BG and HI are apparently associated with the polymorphous transformation of this silicide. Line EG is an eutectoid and HI a peritectoid line. The homogeneous range of the  $\beta$ -phase extends from about 49 to 53 weight %. The composition point of  $\text{Li}_4\text{Si}$  (50.3 weight % Si) is located within this range. Alloys containing over 50% Si are heterogeneous. The density of  $\text{Li}_4\text{Si}$  is equal to 1.16 - 1.17. The chemical properties of lithium silicide were established by investigating the behavior of the alloy in respect to dry air, water, sulfur, liquid bromine, and other substances. There are 4 figures, 1 table and 8 references, 2 Soviet-bloc and 6 non-Soviet-bloc. ✓

ASSOCIATIONS: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow Institute of Fine Chemical Technology) Kafedra khimii i tekhnologii redkikh i rasseyannykh elementov (Department of Chemistry and Technology of Rare and Dispersed Elements)

SUBMITTED: February 22, 1961

Card 2/1 2

BATALOV, Nikolay Mikhaylovich; BELYY, Balentin Antonovich; IOFFE, Aleksandr Borisovich; RABINOVICH, Aron Abramovich; SINAYSKIY, Mikhail Mikhaylovich; IVANOV, V.M., red.; VORONIN, K.P., tekhn.red.

[Electric motors for cranes and metallurgical plants; theory, construction, use] Kranovo-metallurgicheskie elektrodvigateli; teoriia, konstruktsiia, primeneniie. Pod obshchei red. A.A.Rabinovicha. Moskva, Gos. energ. izd-vo, 1958. 168 p. (MIRA 11:5)  
(Electric motors)

IOFFE, A. B.

PA 16T86

USSR/Currents, Electric - Direct  
Motors, Electric

Jul 1947

"Computations for Direct Current Machines,"  
A. B. Ioffe, 4 pp

"Vest Elektro Prom" No 7

Passage of current dispersed in the frontal parts  
of commutator cells under magnetic or non-magnetic  
bands. Reaction of rotors in machines with weak  
fields working under large overloads. The size  
of an ideal polar arc. Size of ampere - turn  
casing. The uni-polar system of excitation.  
Mechanical voltage in heads of cells of TMS.

12.005

IOFFE, A.B., kandidat tekhnicheskikh nauk.

Magnetic characteristics of auxiliary poles. Vest. elektroprom. 18 no. 12:  
8-12 D '47. (MLRA 6:12)

1. Zavod "Dinamo" im. S.M. Kirova.  
(Electric motors--Design and construction)

IOFFE, A.B., kandidat tekhnicheskikh nauk.

New method of computing commutation losses in direct current machines.  
Vest.elektrom. 19 no.3:20-21 Mr '48. (MLRA 6:12)

1. Zavod "Dinamo" im. S.M.Kirova.

(Commutation (Electricity))

10FFE, A-B

SA

PROCESS AND PROPERTIES INDEX

2027. On the heating-up of welded unannealed  
 structural steels for short-time working cycles.  
 Ioffe, A. B. *Metallurgiya* (No. 3) 14-8 (March,  
 1959) in Russian. — Discusses the theory of heating in  
 closed unannealed machines working on short-time  
 cycles for which it is possible to disregard the dis-  
 sipation of heat. The influence of the thermal capacity  
 of the steel on the temperature-rise of the windings is  
 examined both theoretically and experimentally. For  
 cycles lasting 3 min the steel has no appreciable  
 influence; but for durations of 10 min or more the  
 thermal capacity of the steel must be taken into  
 account. For regimes lasting from 3 to 10 min the  
 steel has a partial effect on the winding temperature.  
 Suitable graphs and mechanical expressions are  
 provided. U. S.

ASD-SEA METALLURGICAL LITERATURE CLASSIFICATION

10FFE, A-B  
S A

621.313.333-712

3019. Determination of the volume of cooling air in traction machines. Ioffe, A. B. *Tram. Elektromash., 20 (No. 4) 1-4 (April, 1969) in Russian.*  
A simplified treatment, based on elementary fan theory and empirical data gained on standard Soviet types of traction motors. B. I. K.

ASAC-51A METALLURGICAL LITERATURE CLASSIFICATION

CLASSIFICATION		SUBJECTS		AUTHORS		TITLES		PUBLICATIONS		REFERENCES		NOTES	
1	2	3	4	5	6	7	8	9	10	11	12	13	14



IOFFE, A. E.

33122

Znacheniya Koeffitsiyentov Teplootdachi Aktivnykh Chastey Zakrytykh Elektricheskikh Mashin.  
Vestnik Elektroprom-Sti, 1949, No 10, o. 1-6

SO: Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

OFFICE, A-B												R-4											
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<p>3400. On the heat rejection of a G.A. structure.          1919. A. B. [unclear] [unclear], pp. 9-16 (Jan.          1900) In Russian.—There are considerable variations          among the results of various workers on the problem,          depending upon the different methods of calculation          and experiment. There is no agreement even on the          fundamental reference parameter on which measure-          ments may be based, i.e. peripheral speed of the          structure or cooling air velocity or quantity. The          problem is thoroughly analyzed and a new method          suggested is based on experimental data obtained on          a wide series of Soviet types.</p> <p style="text-align: right;">H. P. S.</p>																							
SSA-SLA METALLURGICAL LITERATURE CLASSIFICATION												S-E-177-12111											
BASIC CATALOG												BASIC CATALOG											
SERIALS - SEE												SERIALS - SEE											
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INDEXED MAP ONLY USE												INDEXED MAP ONLY USE											
ORIGINATOR												ORIGINATOR											
DATE												DATE											

IOFFE, A. B.

Electrical Engineering Abstracts  
May 1954  
Machines.

1224. Potential conditions on the commutator of  
h.v. traction motors and measures for improving them.  
A. B. Ioffe. *Elektricheskoe*, 1954, No. 1, 42-5. (R  
Russian)

For the motor-units or coaches on Soviet railways  
with 3300 V operating voltage, series-connected pairs  
of motors of 1650 V terminal voltage are used.  
Manufacture of these machines is difficult owing to the  
competitive smallness of the wheel diameters of the  
coaches (1050 mm), the armature diameter being  
limited to 440 mm and the collector to 360 mm. On  
the latter not more than 301 segments can be accom-  
modated, so that the voltage between bars is 22 V.  
The difficult operating conditions of axle-suspended  
traction motors further complicate the potential con-  
ditions on the commutator. The author analyses the  
various causes of commutator flashovers on the basis  
of experimental potential curves and derives design  
principles for such motors based on the voltage per  
running cm of commutator periphery and voltage  
between bars, as well as the field distortion caused by  
armature reaction and on pole enclosure and the re-  
lated air gap. The potential curve of the commu-  
tator can thus be predicted and if need be modified at  
the design stage and the danger of flashover thereby  
reduced. Since this requirement is to some degree  
incompatible with the need for using the motors for  
power braking (constant or regenerative), a com-  
promise has to be found, which the author presents in  
its essentials, in the form of characteristics of 1650 V  
and 825 V motors.

S. F. KRAUS

~~IOFFE~~ Aleksandr Borisovich; IVANOV, V.M., redaktor. ; LARIONOV, G.Ye.,  
tekhnicheskii redaktor.

[Electric traction machinery: theory, construction, design] Tsiagovye  
elektricheskie mashiny; teoriia, konstruktsiia, proektirovanie. Mo-  
skva, Gos.energ.izd-vo, 1957. 247 p. (MLRA 10:5)  
(Electric locomotives)

AUTHOR: Ioffe A.B. (Cand.Tech.Sci.)

110-7-9/30

TITLE: Concerning a traction motor for new motor coach sections.  
(O tyagovom elektrodvigatele dlya novykh motorvagonnykh  
seksiy.)

PERIODICAL: "Vestnik Elektromyshlennosti" (Journal of the  
Electrical Industry), Vol.28, No.7, 1957, pp.30-33 (USSR)

ABSTRACT: At the present time a new series of motor coach sections  
type CH has been built and tested and preparations are  
being made for the output of further sections. Design  
work continues on the improvement of individual items of  
equipment. The first part of the article explains the  
difficult conditions of operation of traction motors par-  
ticularly in respect of exposure to dirt and water and  
mechanical shocks. The limitations on commutator design  
are explained. The decision that was taken after the war  
to electrify suburban railways at 3000 volts called for  
the development of a new electric motor to replace machine  
type ~~AM~~-152 which was designed for 750/1500 V. Since the  
actual coaches and bogies were not changed the new electric  
motor type AK-103 had to be no bigger than machine type  
~~AM~~-152 and so it had to be almost a true octagon in shape.  
(Fig.1). Therefore, the armature and commutator had to be

Card  
1/3

Concerning a traction motor for new motor coach sections.  
(Cont.)

110-7-9/30

of relatively small diameter. A number of design features and improvements that were made to motor type AK-103 are listed. They have ensured its satisfactory operation in service. However, it was undoubtedly necessary to improve the working conditions of the motor.

Apart from the possibility of using a 750-3000 V machine there was no possibility of making a radical improvement in the motor design with the given bogie. Work was started in 1951 on the design of a new motor type AK-106 intended for the new motor coach sections type CH. This motor, illustrated in Fig.4, is of 200 kW output at 830/1140 rpm (full and weakened field). The commutator diameter is 460 mm and the armature diameter 520 mm. This increase in commutator diameter for a given frame diameter was possible because the frame was made square. The maximum voltage between commutator bars in machine type AK-106 is 39 V. The voltage per centimeter of commutator circumference is 15% lower than in motor type AK-103. Tests on motor type AK-106 both on the bench and in a train provided general confirmation of the correctness of the design principles adopted. The specific weight of motor type AK-106 is

Card  
2/3

Concerning a traction motor for new motor coach sections.  
(Cont.)

110-7-9/30

11.0 kg/kW as against 15 kg/kW for type AK-103. Improvement in the method of connecting the motor to the wheels is suggested. It is also important to develop regenerative braking for motor coach sections, which in practice will only be possible by adopting the author's suggestion to use motors of 750/3000 V.

There are 4 figures and 2 Slavic references.

ASSOCIATION: Dinamo Works. (Zavod "Dinamo").

AVAILABLE:

Card 3/3

IOFFE, A.B., kand.tekhn.nauk.

Some problems of calculating binding coils for electric machines.  
Vest.elektromprom. 28 no.8:17-19 Ag '57. (MIRA 10:10)

1.Zavod "Dinamo."

(Electric motors)



SOV/110-59-6-10/24

AUTHOR: Ioffe, A.B., Candidate of Technical Sciences

TITLE: Calculation of the Quality of Commutation of a Direct Current Motor with Pulsating Voltage Supply ( O raschete kachestva kommutatsii elektrodvigatelya postoyannogo toka, pitayemogo ot pul'siruyushchego napryazheniya)

PERIODICAL: Vestnik elektromyshlennosti, 1959, Nr 6, pp 44-47 (USSR)

ABSTRACT: Traction motors supplied by semiconductor rectifiers look promising for electric locomotives. With this type of supply the voltage applied to the machine is pulsating and may be considered as the sum of a d.c. component and a second-harmonic a.c. component as indicated in Fig 1. In most practical cases the motor field winding is shunted by active resistance through which the second harmonic current passes and so there is practically no pulsation in the machine field current. There is, however, appreciable pulsation of the mmf of the interpole because pulsating current flows through the inter-pole windings. It causes eddy-currents in the inter-pole core and the frame, which upset the balance between reactive and commutating emf's because the change in flux of the

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SOV/110-59-6-10/24

Calculation of the Quality of Commutation of a Direct Current Motor  
with Pulsating Voltage Supply

inter-pole lags behind the change in current. This causes sparking at the brushes. Mathematical analysis of these processes, which was first given by S.A. Petrov, is very complicated and the object of this article is to give a relatively simple and practical method of calculating the value of the inter-pole flux of a d.c. motor supplied by a pulsating voltage. The distribution of the magnetic flux in the solid core can be expressed by Eq (5) or the curve of Fig 2. The depth of penetration of the flux into the core,  $\Delta$  is determined from Eq (7). The permeability is influenced by the presence of the main d.c. field. Expression (8) is then given for the permeability of the inter-pole core and expression (9) for that of the machine frame. A method of successive approximations is used by selecting values for the induction under the inter-pole and the alternating component of the current. Expression (18) is then derived for the magnetising force and expression (19) for the pulsating component of the current where the number of turns on the inter-pole is given by expression (20). If

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Calculation of the Quality of Commutation of a Direct Current Motor  
with Pulsating Voltage Supply

at the end of the calculation the current does not work out to the assumed value the calculation is repeated until satisfactory agreement is reached. Having found the induction under the inter-pole it is possible to determine the commutating emf: comparison with the reactive emf corresponding to the pulsating component of the current then indicates the degree of under-compensation. To determine the intensity of the consequent sparking in this case it is recommended to use the empirical graph in Fig 4. Here sparking is shown as a function of the remanent emf in the section of the winding short-circuited by the brush. Calculations by this procedure show that induction under the inter-poles is usually negative. It is shown that it does not help to increase the section of the inter-pole and the introduction of a second air-gap in the inter-pole has little effect. It may help to laminate the inter-pole but the effectiveness of this measure is reduced because the machine frame is solid. By way of example, a numerical

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SOV/110-59-6-10/24

Calculation of the Quality of Commutation of a Direct Current Motor  
with Pulsating Voltage Supply

calculation is made of the induction under the inter-pole  
due to the second harmonic for an electric motor  
type KPDN4U, on which S.A.Petrov obtained his experimental  
data. There are 4 figures and 3 Soviet references.

Card 4/4

IOFFE, A.B., kand.tekhn.nauk

Single-phase traction commutator motor with raised transformer.  
e.m.f. Vest.elektrom. 31 no.1:68-70 Ja '60. (MIRA 13:5)

(Electric railway motors)

IOFFE, A.B., kand.tekhn.nauk

New series of MT000-700 a.c. electric motors for electric cranes  
and metallurgical plants. Vest. elektroprom. 32 no.7:6-9 31 '61.  
(MIRA 14:10)

(Electric motors, Alternating current)

TRAKHTMAN, I.M.; IOSEE, A.B.; CHERNYI, M.I.; FUZNETSOV, S.M.; SOLOV'YEV, N.  
P.; DOROGUSH, G.I.; KAPUSTIN, L.D.; VINBERG, B.G.; RUBCHINSKIY, Z.  
M.; PETRO, G.A.; ZAGORDAN, N.M.; BRAVIN, V.F.

Multiple-unit rail car with regenerative braking. Prom. energ. 15  
no.11:18-19 N '60. (MIRA 14:9)  
(Railroad motorcars) (Electric railway motors)

IOFFE, Aleksandr Borisovich; NAKHODKIN, H.D., doktor tekhn. nauk,  
retsenzent; IVANOV, V.M., inzh., red.

[Electric traction machines; theory, construction and  
design] Tiagovye elektricheskie mashiny; teoriia, kon-  
struktsiia, proektirovanie. izd.2., perer. i dop. Mo-  
skva, Energiia, 1965. 231 p. (MIRA 18:3)



L 37654-66 EWT(d) IJP(c)  
ACC NR: AP6015601

SOURCE CODE: UR/0020/66/168/002/0269/0272

AUTHOR: Ioffe, A. D.

ORG: none

TITLE: <sup>16</sup> Transforms of properly formulated variational problems

SOURCE: AN SSSR. Doklady, v. 168, no. 2, 1966, 269-272

TOPIC TAGS: differential equation, vector, mathematic space, mathematic transformation, sequence

ABSTRACT: The following differential equation and functional operator are considered:

$$dy/dt = f(t, y, u)$$

$$I(y) = \int_a^b F(t, y, u) dt$$

where  $t$  is a scalar;  $y$  an  $n$ -dimensional vector; and  $u$  a point of the metric compactum  $U$ . The functions  $f(t, y, u)$  and  $F(t, y, u)$  are continuous in  $[a, b] \times \mathbb{R}^n \times U$  and continuously differentiable with respect to  $y$ . Two problems are formulated: (A) to find  $\inf_D I(y)$ ; and (B) to determine

$$\inf \int_a^b F(t, y, \dot{y}) dt$$

in

$$D_0 = \{y(t) \in C[a, b], y(a) = y_0, y(b) = y_1, \dot{y}(t) \in Q(t, y(t))\}$$

UDC: 519.31/33

Card 1/2

L 37654-66

ACC NR: AP6015601

If problem A is properly formulated, then problems A and B are equivalent.  $D_0$  is the closure of  $D$  in  $C^n[\bar{a}, \bar{b}]$ :

$$\inf_D I(y) = \inf_{D_0} \int_0^1 \bar{P}(t, y, \dot{y}) dt,$$

if the sequence  $y_m(t) \in D$  minimizes  $I(y)$  in  $D$ , then it is a minimizing sequence for problem B. Conversely, for any sequence that minimizes  $\int_0^1 \bar{P}(t, y, \dot{y}) dt$  in  $D_0$  there exists a cofinal to it in  $C^n[\bar{a}, \bar{b}]$ , which minimizes  $I(y)$  in  $D$ . If  $D$  is compact in  $C^n[\bar{a}, \bar{b}]$ , then  $\inf \int_0^1 \bar{P}(t, y, \dot{y}) dt$  is attained on some  $\bar{y}(t) \in D_0$ , and in  $D$  there exists a sequence  $y_m(t) \rightarrow \bar{y}(t)$  such that  $\lim_{m \rightarrow \infty} I(y_m) = \int_0^1 \bar{P}(t, \bar{y}(t), \dot{\bar{y}}(t)) dt$ . Two examples are

introduced. The author thanks V. M. Tikhomirov for valuable discussions and advice. This paper was presented by Academician A. N. Kolmogorov on 27 August 1965. Orig. art. has: 10 formulas.

SUB CODE: 12/ SUBM DATE: 26Jul65/ ORIG REF: 004

Card 2/2

**"APPROVED FOR RELEASE: 08/10/2001**

**CIA-RDP86-00513R000618620012-5**

**APPROVED FOR RELEASE: 08/10/2001**

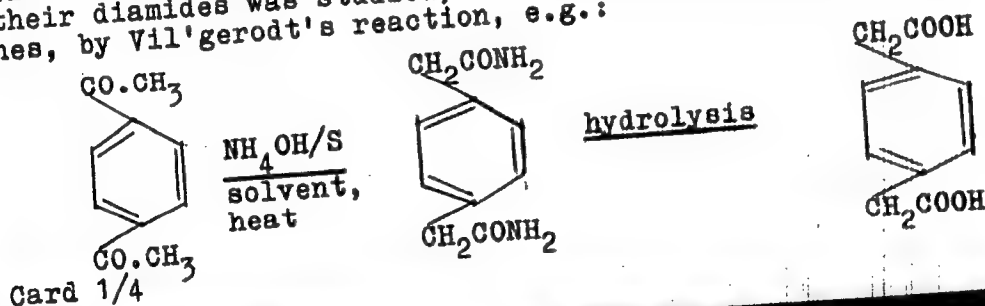
**CIA-RDP86-00513R000618620012-5"**

32398  
S/080/62/035/001/011/013  
D204/D304

S.3400 2209

AUTHORS: Khcheyan, Kh. Ye., Ioffe, A. E. and Pavlichev, A. F.  
TITLE: Synthesis of phenylene diacetic acids and their amides  
PERIODICAL: Zhurnal prikladnoy khimii, v.35, no.1, 1962, 206-209

TEXT: This investigation was carried out in view of the wide applicability of phenylene diacetic acids and because the methods of synthesis hitherto reported were thought to comprise practical difficulties. The preparation of *p*- and *m*-phenylene diacetic acids and their diamides was studied, from the corresponding diacetyl benzenes, by Vil'gerodt's reaction, e.g.:



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D204/D304

## Synthesis of phenylene ...

The reactions were conducted in an autoclave, using either sulphur and 26%  $\text{NH}_4\text{OH}$  or  $\text{NH}_4^+$  polysulphide, in pyridine, over 4.45 hours at 155 - 165°C, under a pressure of 15 - 20 atm. With ammonium polysulphide the yields reached 95%, but were decreased by shortening the reaction time and by changing the temperature or the ratio of the reactants. It was shown that the sulphur could be regenerated and re-used. A direct preparation by acid or alkaline hydrolysis of the reaction mass, without separating the amide, and using  $\text{S}/\text{NH}_4\text{OH}$ , was also achieved, with 85-90% yields. The latter were reduced to 70 - 75% when methanol was used in place of pyridine and to 40 - 50% when the reactions took place at 210 - 220°C in the absence of a solvent. Phenylene diacetic acids were also prepared by the Vil'gerodt-Kindler reaction, using morpholine and S, obtaining 80 - 85% and 70 - 75% yields of the p- and m-isomers respectively. The preparations were conducted at the b.p. of morpholine. The following conditions were carried out: (a) Reaction times (1 - 4 hrs), (b) diacetyl benzene : morpholine : sulphur ratio (1 : 4 : 4), (c) duration of the alkaline hydrolysis (9 - 16 hours) and (d) con-

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S/080/62/035/001/011/013  
D204/D304

# Synthesis of phenylene ...

centration of the hydrolyzing alkaline solution (10 - 20%). It was found that the reduction of the reaction time to 1 hour, reactant-ratio to 1 : 2 : 2 and alkali concentration to 10% lowered the yields to 25 - 50%. The starting materials (diacetyl benzenes) were obtained by the aerial, liquid-phase oxidation of a mixture of ethyl benzenes at 130 - 140°C, using Co oleate and iso-propyl benzene hydrogen peroxide as the catalysts. All experimental details are given in full. The process is considered to be simple and economical and capable of utilization on an industrial scale. There are 1 figure and 25 references: 5 Soviet-bloc and 20 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: Sh. Murahashi and R. Anzai, Ch. A., 44, 11106, (1950); O. B. Edgar and R. Hill, J. Pol. Sci., 8, 1, (1952); P. V. Smith and F. Knoth, U.S. Pat. 2,570,038, (1951); K. Schofield and R. S. Theobald, J. Chem. Soc., 2404, (1949).

ASSOCIATION: Nauchno-issledovatel'skiy institut sinteticheskikh spirtov (Scientific research Institute of Synthetic Alcohols)

Card 3/4

Synthesis of phenylene ...

SUBMITTED: February 24, 1961

32398

S/080/62/035/001/011/013

D204/D304

Card 4/4

YAKOBSON, G.G.; LOFFE, A.E.; VOROZHTSOV, mladshiy, N.N.

Alkylation and arylation of aromatic amines in the presence of  
metal fluorides. Izv. SO AN SSSR no.3 Ser. Khim. nauk no.1:  
156-158. 163. (MIRA 16:8)

1. Novosibirskiy institut organicheskoy khimii Sibirskogo  
otdeleniya AN SSSR i Khimiko-tekhnologicheskii institut im.  
D.I. Mendeleyeva, Moskva.  
(Amines) (Alkylation) (Arylation)



SUKHNEV, V.A.; ZHUKOVA, L.A.; IOFFE, A.E.; KOLOKOLOVA, N.A.

Two-liquid micromanometer for measuring slight pressure losses  
in rarefied gases. Izv. tekhn. no.12:17-19 D '63. (MIRA 16:12)

BAYKOV, S.D.; GAL'PERIN, Yu.F.; IOFFE, A.F.; SHLOKOV, G.N.

Ferrites with rectangular hysteresis loops for electronic-physical  
apparatus. Mnogokan. izm. sist. v iad. fiz. no.5:158-164 '63.  
(MIRA 16:12)

ACC NR: AR6016154

SOURCE CODE: UR/0058/65/000/011/A027/A027

AUTHOR: Ioffe, A. F.

TITLE: Operating principle of scale circuits for multi-hole cores with magnetic de-coupling 16C

SOURCE: Ref. zh. Fizika, Abs. 11A279

REF SOURCE: Tr. 6-y Nauchno-tekh. konferentsii po yadern. radioelektron. T. 1. M., Atomizdat, 1964, 208-222

TOPIC TAGS: computer memory, magnetic core storage, computer storage device

ABSTRACT: Scaler circuits with transformer-fluxors (T), used for the construction of apparatus that operates reliably at a high level of penetrating radiation, are considered. Several scaler circuits are proposed, which are analyzed from the point of view of obtaining the maximum volume and the counting rate with minimum number of T and timing generators, uniform distribution of the load on these generators, and minimum total power consumption by the circuit. A magnetic-flipflop circuit is described with a counting input using 5-hole T's. The flip-flop consists of four T's. A binary scaler circuit, constructed with such flip-flops and a scaler factor  $2^n$ , uses a total of  $4n$  T's. Single-step and push-pull ring scaler circuits are described, and also scaler circuits with logical feedback. Circuits of the latter type are of particular interest since the binary cell contains 4 times more cores than the ring cell. From a comparison of all the circuits considered it follows that the most suitable for the

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ACC NR: AR6016154

construction is the single-step ring circuit with logical feedback; this circuit has the largest scaler factor with a small number of T's and of timing generators. B. Ol'khov [Translation of abstract]

SUB CODE: 09

Card 2/2

L 47119-66 ENT(1) TG

ACC NR: AR6016022

SOURCE CODE: UR/0271/66/000/001/B026/B026

AUTHOR: Ioffe, A. F.

32

B

TITLE: Patterns for designing scaling circuits using multihole cores with magnetic decoupling

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 1B182

REF SOURCE: Tr. 6-y Nauchno-tekhn. konferentsii po yadern. radioelektron. T. I. M., Atomizdat, 1964, 208-222

TOPIC TAGS: scaling circuit, trigger circuit, transfluxor, magnetic core, multihole core, magnetic decoupling

ABSTRACT: The paper concerns scaling circuits using transfluxors (T) for designing equipment with reliable operation at a high level of penetrating radiation. Many scaling circuits are proposed which are studied for obtaining maximum count volume and rates with minimum T and system clocks, and with an even load distribution on these clocks and minimum overall requirements for the

Card 1/2

UDC: 681.142:621.374.32

E 47119-66

ACC NR: AR6016022

circuit. A magnetic trigger circuit with a digital input using five-hole trans-  
fluxors is described. The trigger consists of four T. A binary scaling circuit  
utilizing such triggers with a scaling factor of  $2^n$  requires  $4n$  T. Single-cycle  
and push-pull ring scaling circuits, as well as logic feedback ring circuits, are  
described. The logic circuits are of special interest as a binary cell has four  
times as many cores as a ring circuit. Comparison of the various circuits in  
question leads to the conclusion that a single-cycle ring circuit with a logic feed-  
back is the most advantageous because it has a small number of T and clocks  
and a high scaling factor. Orig. art. has: 9 figures and a bibliography of 12  
titles. [Translation of abstract] [DW]

SUB CODE: 09/

LS  
Card 2/2

L 39483-66 ENT(d)/ENP(1) IJP(c)" GG/BB/GD/GS

ACC NR: AT6002990

SOURCE CODE: UR/0000/65/000/000/0220/0231

AUTHOR: Ioffe, A. F.; Kuznetsov, K. F.

ORG: none

TITLE: Transfluxor-type shift register 16U

SOURCE: Vsesoyuznoye soveshchaniye po magnitnym elementam avtomatiki i vychislitel'noy tekhniki. 9th, Yerevan, 1963. Magnitnyye tsifrovyye elementy (Magnetic digital elements); doklady soveshchaniya. Moscow, Izd-vo Nauka, 1965, 220-231

TOPIC TAGS: shift register, transfluxor, magnetic element, computer

ABSTRACT: Based on American sources (D. R. Bennion, H. D. Crane, N. S. Prywes, V. F. Gianola, et al.), generally known information is presented on transfluxors: principle of operation, size, characteristics, circuits. A theory of transfluxor-type shift register is set forth; information-transmission cycle, priming cycle, and reverse-information blocking are analyzed. Formulas for currents, information-transmission optimality, time of operation, and coupling resistance are

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L 39483-66

ACC NR: AT6002990

developed. For experimental verification, a laboratory hookup of the shift register designed with 5-hole transfluxors was tested. It exhibited stable operation at a supply-voltage variation of  $\pm 15\%$  and within a temperature range of  $-10 + 40^\circ\text{C}$ . The high reliability of this slow-operating circuit is noted. Orig. art. has: 18 figures and 40 formulas.

SUB CODE: 09 / SUBM DATE: 23Apr65 / ORIG REF: 001 / OTH REF: 004

Card 2/2 MLP



11. 11. 1965  
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1. 1. 1965

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1. 1. 1965

multichannel amplitude analyzers with sequential digit access and random access.

The device contains a matrix of three-hole magnetic cores with

100 channels and 1000 bits per channel.

The device is capable of storing 100,000 bits of data.

The device is capable of storing 100,000 bits of data.

The device is capable of storing 100,000 bits of data.

The device is capable of storing 100,000 bits of data.

The device is capable of storing 100,000 bits of data.

The device is capable of storing 100,000 bits of data.

On the contrary, in compiling the 1970-71 and 1971-72 annual reports, respectively, the following were made the subject of separate chapters: "Play and the Child" and "The Child and the Family". The 1972-73 report, however, connected the subject of play with the topic of the importance of the environment.

An output unit is connected to the "0" reading amplifier.

1. The output unit is connected to the "0" reading amplifier, and the output unit is connected to the "0" reading amplifier.

10. The output unit is connected to the "0" reading amplifier.

10. The output unit is connected to the "0" reading amplifier.

10. The output unit is connected to the "0" reading amplifier.

IOFFE, A.F., akademik [deceased]

What modern science and technology can give to the North.  
Probl. Sev. no.6:95-97 '62. (MIRA 16:8)

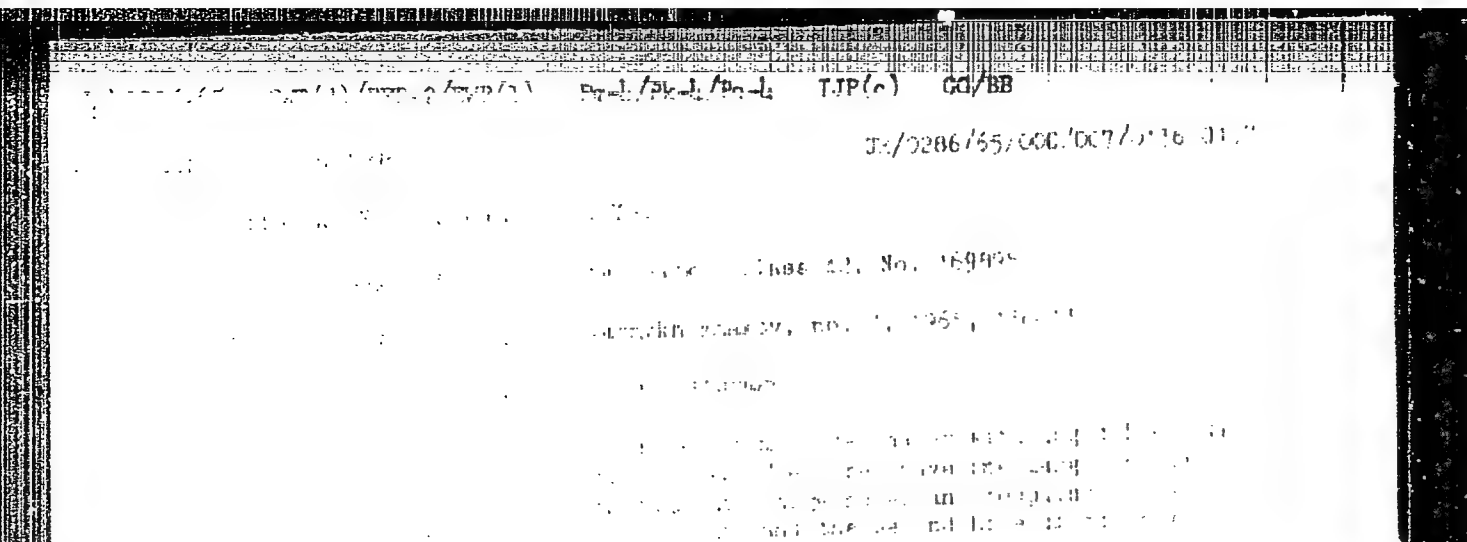
(Russia, Northern--Housing)  
(Russia, Northern--Food)

IOFFE, Anatoliy Fedorovich; FILINOV, Yevgeniy Nikolayevich; VIZUN,  
Yu.I., red.; BUL'DYAYEV, N.A., tekhn. red.

[Measurement of the parameters of ferrite cores having  
rectangular hysteresis loops] Izmerenie parametrov fer-  
fitovykh serdechnikov s priamougol'noi petlei gisteretizma.  
Moskva, Gosenergoizdat, 1963. 134 p. (MIRA 16:9)  
(Ferrites (Magnetic materials)) (Cores (Electricity))

IOFFA, A.F.

Precise measurements of the amplitude characteristics of ferrite  
cores with rectangular hysteresis loops. Radiotekhn. sbor. Gos.  
izd-va lit. v obl. atom.nauki i tekhn. no.6:114-121 '64  
(MIRA 17:8)





"APPROVED FOR RELEASE: 08/10/2001

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to the parallel code recording coils which pass through the

END PAGE 09

FORM 1000

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CIA-RDP86-00513R000618620012-5"

IOFFE, A G

N/5  
613.633  
.16

Poluprovodniki v sovremennoy fizike (Semiconductors in contemporary physics) Moskva, Akademkniga, 1954.

355 p. gra hs.

At head of title: Akademiya Nauk SSSR.

"Osnovaya liter tura po poluprovodnikam": p. 351-352.

GLYAVIN, V.I. (Gor'kiy); NEKHABOV, S.Ya. (Gor'kiy); IOFFE, A.G. (Gor'kiy)

Work practices used in the construction of a water intake.

Vod.1 san.tekhn. no.2:32-34 F '60. (MIRA 13:5)

(Kotovo region--Water-supply engineering)

25(6)

SOV/32-25-2-41/78

AUTHORS:

Krichmar, S. I., Ovcharenko, V. N., Ioffe, A. I.

TITLE:

Automatic Gas Analyzer for the Determination of Inert Gases in Ammonia (Avtomaticheskiy gazoanalizator dlya opredeleniya inertnykh gazov v ammiak)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 2, pp 213 - 215 (USSR)

ABSTRACT:

The apparatus described (Fig) permits a continuous inspection of the gases used in the production of weak nitric acid. The rate of displacement of a constant volume of an absorption liquid in a eudiometer by the gases remaining after the absorption of ammonia in the absorption liquid is measured. The apparatus has electrically operated valves of the KE-2 type, an automatically balanced bridge EMD-212, and a synchronous motor SD-60 (for turning the timing relays), as well as an EPD potentiometer. The inert-gas content is recorded automatically. A detailed description of the apparatus is contained in the article, and it is mentioned that with the EPD potentiometer it is necessary to correct the delay, which is not true in the case of EPP-09. The total error is given

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Automatic Gas Analyzer for the Determination of Inert Gases SOV/32-25-2-41/78  
in Ammonia

as  $\pm 15\%$ . In experimental operation of the apparatus described the following conditions were obtained: Pressure of ammonia at input -500-700 mm water column, gas consumption according to the manostat - 1.5 l per hour, duration of analysis - 8 minutes, absorption liquid to be replaced once a week - 3 l of 25%  $H_2SO_4$ , measuring range 0.05-1.5%. A calculation formula as well as a comparative table of the analysis results obtained with this apparatus and the results of chemical analyses are given (Table). There are 1 figure and 1 table.

ASSOCIATION: Dneprodzerzhinskiy azotno-tukovyy zavod (Dneprodzerzhinsk Nitrogen-Fertilizer Plant)

Card 2/2

TOFFE, A.I.

83279

S/021/60/000/001/009/013

A158/A029

15.9130

AUTHORS: Ovcharenko, F.D., Corresponding Member of the AS UkrSSR; Blokh, H. A.; Hudovich, H.V.; Toffe, A.I.

TITLE: Activated Diatomite - a New Rubber Filler 15

PERIODICAL: Dopovidi Akademiyi nauk Ukrayins'koyi Radyans'koyi Sotsialistychnoyi Respubliki, 1960, No. 1, pp. 54 - 59

TEXT: In his other work (Ref. 2) the first author showed that pyrophyllite can be used in the manufacture of rubber cables, yet the strength of rubber obtained with its use is relatively low (60 kg/cm after 30 - 60 min of vulcanization at 145°C), which calls for a strengthening of such fillers through activation. The authors used the following activating agents: 1) alcamon OC-2 (OS-2), an activated Crimean diatomite (a quarternary salt of diethylamino-methylglycolic ether) that increases the strength criteria by 50 - 60% as compared to unactivated fillers during a short period (only 4 - 10 min instead of 30 - 60 min and more) and accelerates the process of vulcanization; 2) carbazolin, a quarternary salt of imidazole derivatives; 3) equalizer A, a preparation of mixed cation-active and non-ionogen types. The Crimean diatomite consisted of (in %): SiO<sub>2</sub> 65.38;

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Activated Diatomite - a New Rubber Filler

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CaO 2.00; Al<sub>2</sub>O<sub>3</sub> 15.43; MgO 2.43; Fe<sub>2</sub>O<sub>3</sub> 5.82; SO<sub>3</sub> 1.20; (K, Na) Cl 0.5. Even when alcamon OS-2 was introduced directly on the rollers into a rubber mixture filled with natural diatomite, strengthening of the rubber and acceleration of vulcanization were observed. The indicated positive results should be explained as a change in the chemical nature of the diatomite surface into an organophillic surface, and by the peculiarities of the structure of natural diatomite, which is capable of interacting with the structure of rubber. Table 1 shows chemico-mechanical properties of rubbers obtained with the use of pyrophyllite and diatomite. Table 2 shows the percentage of activating substances in rubbers at various regimes of vulcanization. Table 3 gives the results of the adding alcamon to rubber (in %) under various conditions of vulcanization. There are 3 tables and 3 Soviet references.

ASSOCIATION: Instytut zagal'noyi ta neorganichnoyi khimiyi AN UkrSSR ta Dnipropetrovs'kyy khimiko-tehnologichnyy instytut (Institute of General and Inorganic Chemistry of the AS UkrSSR and the Dnepropetrovsk Chemico-Technological Institute)

SUBMITTED: August 31, 1959

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AUTHOR: <sup>44</sup>Levitin, I. A.; <sup>44</sup>Petrova, V. D.; <sup>44</sup>Marchenko, Ye. D.; <sup>44</sup>Ioffe, A. I.

ORG: <sup>44</sup>Moscow Tire Plant (Moskovskiy shinnyy zavod)

TITLE: Development and use of a waxlike antiozonant in automobile tire treads

SOURCE: Kauchuk i rezina, no. 12, 1965, 24-25

TOPIC TAGS: rubber chemical, antioxidant additive, resin, synthetic rubber, vehicle component

ABSTRACT: The Moscow Tire Plant (Moskovskiy shinnyy zavod) and <sup>44</sup>Moscow Petroleum and Oil Refinery (Moskovskiy neftemaslozavod) developed a waxlike antiozonant composed of natural and synthetic ceresin, paraffin, and petrolatum, the content of ceresins being predominant. A thorough study of the new antiozonant, AF-1, was carried out in tread rubbers composed of 100% SKMS-30ARKM. The protective properties of AF-1 were found to compare very favorably with those of Antilux, an imported antiozonant. AF-1 has now replaced Antilux at the Moscow Tire Plant, and its use in the tire and rubber industry for protection of rubber treads against ozone cracking is highly recommended. Orig. art. has: 2 figures and 3 tables.

SUB CODE: 11, 13 / SUBM DATE: none / ORIG REF: 003

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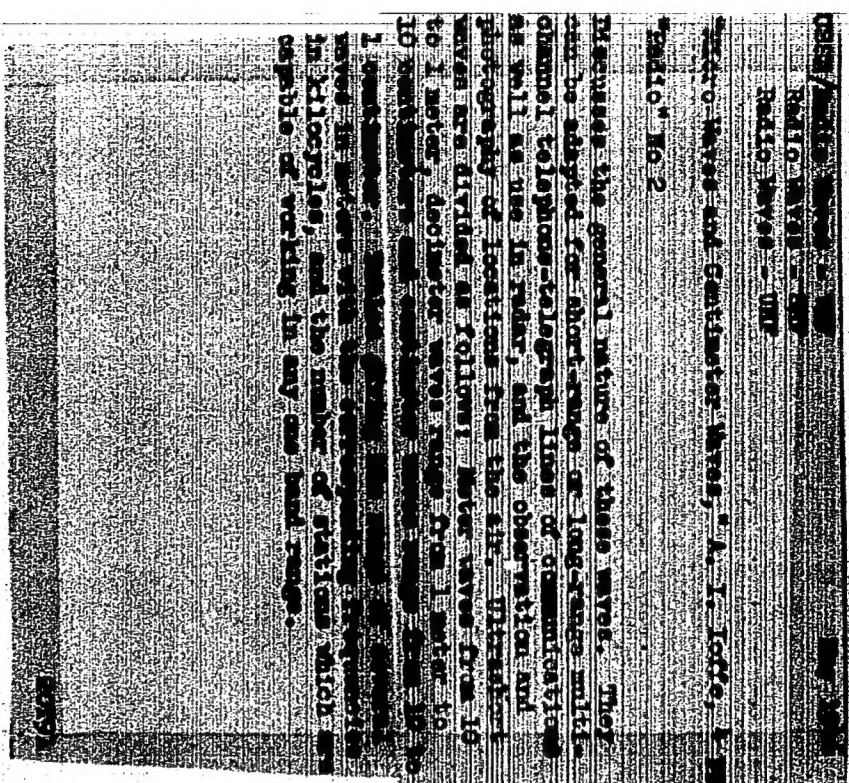
UDC: 678.048.004.12.004.14



IOFFE, A.I.

Noncontact indicator of a given displacement with a remote  
adjustment. Izv. tekhn. no. 11:62-63 N '65. (MIRA 18:12)

IOFFE, A. I.



Measure the general nature of these waves. They can be adapted for short-range or long-range with channel telephone-telegraph lines of communication as well as use in radar, and the observation and photography of locations from the air. Without waves are divided as follows: meter waves from 10 to 1 meter, decimeter waves from 1 meter to 10 centimeters and millimeter waves from 10 to 1 centimeter. These waves are used for various purposes in science and the corresponding frequencies in kilocycles, and the number of stations which are capable of working in any one band range.

IOFFE, A.I.; LIFSHITS, A.S.

Electric compensation of temperature errors in potentiometric pressure-  
recording gauges. Izv. vuzov. Tekhn. nauch. zap. 3:37-40 My-Je '56. (MLRA 9:9)  
(Pressure gauges)

*Ioffe, N.I.*  
LIFSHITS, A.S.; ~~IOFFE, A.I.~~

Induction transformer transducers used in remote measurements of  
displacements. Izv. tekhn. no. 3:66-68 My-Je '57. (MLRA 10:8)  
(Remote control)